**ROSETTA UPDATE**

10:00:00

**[ESA STING]**

10:00:10

**[Shots of Rosetta signal and ESOC, 20th January 2014]**

A small signal but a big reaction…after confirmation in January that the Rosetta spacecraft had woken up in deep space, ready for the most important phase of its comet chasing mission.

10:00:25

**[Inset clip Andrea ACCOMAZZO, Spacecraft Operations Manager, ESA]**

*Getting it back is incredible, now we have one of most fantastic adventures in front of us, one of the most challenging space missions ever.*

10:00:33

**[SOLAR SYSTEM AND COMET ANIMATION]**

Rosetta’s challenge is to find out more about the origin of our Solar system and obtain clues of how life and water came to Earth. It will do this by exploring the comet at close quarters - flying alongside, orbiting and landing on it.

10:00:49

**[Inset clip Paolo FERRI, Head of Mission Operations, ESA]**

*Later in springtime we’ll switch on scientific instruments, verify them and this will bring to detection of comet, we want the cameras onboard the spacecraft to see the comet so that then we can manoeuvre the trajectory of spacecraft to the right direction*.

10:01:09

**[Shots of ESOC CLEAN ROOM]**

There’s also an exact copy of the spacecraft at ESOC for testing. And when Rosetta woke up after being in deep space hibernation since 2011, one of the first things is did was to warm up its star trackers.

10:01:25

**[Inset clip Armelle HUBAULT, Spacecraft Operations Engineer, ESA**

*This is one of the star trackers on Rosetta, we’ve got two on board. They are basically big cameras which are looking at the stars and from the pattern of the stars using maps which are stored on board they can tell the on board computer where the spacecraft is looking in the universe.*

10:01:43

**[ROSETTA AND COMET ANIMATION]**

Over the next few months, the excitement will build once more as the spacecraft gradually approaches comet 67P/Churyumov-Gerasimenko, making continual observations of its icy nucleus.

10:01:57

**[Inset clip Jean-Jacques DORDAIN, Director General, ESA]**

*We shall be around the comet this summer and we shall land on the comet in November and after that, until at least mid-2015, we shall be on a comet and around a comet to see how a comet is living for more than one year.*

10:02:20

**[ROSETTA AND PHILAE LANDER ANIMATION]**

Rosetta’s robotic Philae lander will be the first controlled landing onto a comet. Its 10 on board instruments will then examine the comet’s surface alongside the additional 11 instruments on the orbiting spacecraft. And by studying the comet from orbit and on the ground, mapping its surface and examining changes in its activity, Rosetta will produce a scientific goldmine.

10:02:45

**[Inset clip Matt TAYLOR, Project Scientist, ESA]**

*It’s going to provide us with an unprecedented characterization of a comet. This is groundbreaking science we’re going to do and that’ll lead us to a journey back in time to the origins of our solar system and from that that’ll provide us with a better understanding of how solar system is formed and its subsequent evolution to how we know it today.*

10:03:04

**[ROSETTA SCANNING ANIMATION]**

As comets are frozen cosmic time capsules, Rosetta will be able to sample material from the gas and dust cloud that gave birth to our Sun, the planets in our solar system and life on Earth.

10:03:18

**[Inset clip Matt TAYLOR]**

The comets were there right at the beginning of the solar system. They were flung out into the deep freeze, storing this information, this primordial mix of material, and that gives us a clue to in fact ultimately where we come from as well.

10:03:31

**[ROSETTA APPROACH AND ORBIT ANIMATION]**

The most difficult part of the mission – the final rendezvous – lies ahead. Between now and May, Rosetta will start slowing down as it approaches the comet. The team will also try and avoid any comet dust as the first camera images will help improve calculations of the comet’s position, orbit, size, shape and rotation. Rosetta will then be another step closer to making history.

**10:04:00 end of a-roll/begin of b-roll**

10:04:00

**Rosetta signal and reactions at ESOC (20/1/14)**

Signal on screen

Audience applause at ESOC

Media shots

Andrea Accomazzo smiling on screen

Matt Taylor watching

10:04:39

**Paolo FERRI, Head of Mission Operations, ESA (English)**

*Later in springtime we’ll switch on scientific instruments, verify them and this will bring to detection of comet, we want the cameras onboard the spacecraft to see the comet so that then we can manoeuvre the trajectory of spacecraft to the right direction*.

10:05:13

**Armelle HUBAULT, Spacecraft Operations Engineer, ESA (English)**

*This is one of the star trackers on Rosetta, we’ve got two on board. They are basically big cameras which are looking at the stars and from the pattern of the stars using maps which are stored on board they can tell the on board computer where the spacecraft is looking in the universe. At the moment the spacecraft is warming them because they are very cold from two and a half years of hibernation and once they are warm enough the spacecraft will use them to know where they are.*

10:05:53

**Jean-Jacques DORDAIN, Director General, ESA (English)**

*This time we are going to the comet and it’s still a long way but we shall be around the comet this summer and we shall land on the comet in November and after that, until at least mid-2015, we shall be on a comet and around a comet to see how a comet is living for more than one year. So that is certainly a big difference. It’s a much bigger mission than Giotto. Risky, because no one has done that before but this is the price to pay to learn a lot about the origin of the solar system and maybe the origin of life so this is certainly an important question.*

10:06:59

**Matt TAYLOR, Rosetta Project Scientist, ESA (English)**

*We’re going to sample a comet for real and Rosetta is going to do that for us. It’s going to provide us with an unprecedented characterization of a comet. This is groundbreaking science we’re going to do and that’ll lead us to a journey back in time to the origins of our solar system and from that that’ll provide us with a better understanding of how solar system is formed and its subsequent evolution to how we know it today.*

10:07:32

Armelle Hubault setup shots

10:08:11

Comet animations

10:08:39

Rosetta animations - mapping the comet, rotating spacecraft, separation of Philae lander from Rosetta, landing, orbital tracking manoeuvres.

10:13:18 end